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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,596	01/24/2005	Patrick Ziegler	860-011847-US(PAR)/200104	4759
2512	7590	06/27/2006	EXAMINER	
PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			LEE, PATRICK J	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/500,596	Applicant(s) ZIEGLER ET AL.	
	Examiner Patrick J. Lee	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,7-10 and 12-21 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,7-10 and 12-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to amendment filed May 30, 2006.

### ***Drawings***

2. The drawings were received on 5/30/2006. These drawings are acceptable.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 8 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The phrase "preferably stored on a data carrier" does not satisfy MPEP § 2106, which requires that a computer program be stored on a computer-readable medium.

### ***Claim Rejections - 35 USC § 112***

5. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to claim 8, the only description supporting this claim is on lines 1-4 of page 3 of the specification. Mere recitation of the method being run off of a computer program does not show that the applicant had the conception at the time of filing of being able to run the steps of the method off of software. Here, applicant has only

Art Unit: 2878

stated that it is preferably stored on a data carrier, which may or may not positively be a computer readable medium.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 & 9 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,376,830 B1 to Froggatt et al.

With respect to claim 1, Froggatt et al disclose a device comprising: optical coupler (306) for splitting an initial measurement signal produced by tunable laser (302) into two measurement signals (354, 356); polarization beam splitters (30, 32) for coding the measurement signals (354, 356) with a code; and detector (340) for detecting the reflected and transmitted signals from device under test (21). Froggatt et al disclose one coded signal (354) being fed into device under test (21) in one direction, and other coded signal (356) being fed into device under test (21) in the other direction. Froggatt et al also disclose the detector (340) receiving a reflected signal in response to first coded signal (354) and a transmitted signal in response to second coded signal (356).

With respect to claim 9, Froggatt et al disclose a device comprising: optical coupler (306) as a device for splitting an initial measurement signal produced by tunable laser (302) into two measurement signals (354, 356); polarization beam splitters (30, 32) as coding devices for coding the measurement signals (354, 356) with a code;

couplers (312, 330) as feeding devices for feeding signals (354, 356) into device under test (21); and detectors (322, 340) as receiving elements for detecting the reflected and transmitted signals from device under test (21). Froggatt et al disclose one coded signal (354) being fed into device under test (21) in one direction, and other coded signal (356) being fed into device under test (21) in the other direction. Froggatt et al also disclose the detector (340) receiving a reflected signal in response to first coded signal (354) and a transmitted signal in response to second coded signal (356).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 8, 13-15, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,376,830 B1 to Froggatt et al.

Froggatt et al disclose the device as described in the discussion of claims 1 & 9.

With respect to claim 8, Froggatt et al does not explicitly disclose a software program, but such would have been obvious to one of ordinary skill in the art in order to automate the process as much as possible to prevent any human error.

With respect to claim 13, Froggatt et al does not explicitly disclose the balancing of optical path lengths through unit under test (21), but such would have been obvious to one of ordinary skill in the art in order to allow the device to prevent any interference

Art Unit: 2878

of signals that could prevent obtaining an accurate signal representative of the condition of the device under test (21).

With respect to claim 14, Froggatt et al does not explicitly disclose the use of a polarization diversity receiver, but such would have been obvious to one of ordinary skill in the art in order to account for the polarization changes imposed by polarizing beam splitters (30, 32).

With respect to claim 15, Froggatt et al does not explicitly disclose the use of frequency selective detection, but such would have been obvious to one of ordinary skill in the art as to allow for the device to obtain an accurate measurement.

With respect to claim 18, Froggatt et al does not explicitly disclose the balancing of optical path lengths through unit under test (21), but such would have been obvious to one of ordinary skill in the art in order to allow the device to prevent any interference of signals that could prevent obtaining an accurate signal representative of the condition of the device under test (21).

With respect to claim 19, Froggatt et al does not explicitly disclose the use of a polarization diversity receiver, but such would have been obvious to one of ordinary skill in the art in order to account for the polarization changes imposed by polarizing beam splitters (30, 32).

With respect to claim 20, Froggatt et al does not explicitly disclose the use of frequency selective detection, but such would have been obvious to one of ordinary skill in the art as to allow for the device to obtain an accurate measurement.

Art Unit: 2878

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,376,830 B1 to Froggatt et al in view of US 5,764,348 to Bloom.

Froggatt et al disclose the device as described in the discussion of claims 1 & 9.

With respect to claim 10, Froggatt et al does not explicitly disclose the use of a switch to sequentially feed one part of the measurement signal to a first path and a second path, but such is disclosed by Bloom through the use of switch (22a). To modify the teachings of Froggatt et al with those of Bloom would have been obvious to one of ordinary skill in the art because such would allow for additional control over the radiation emitted on the device under test and to prevent any confusion as to where the light is being produced.

11. Claims 12, 16, & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,376,830 B1 to Froggatt et al in view of US 6,426,792 B1 to Yamashita.

Froggatt et al disclose the device as described in the discussion of claims 1 & 9.

With respect to claim 12, Froggatt et al does not explicitly disclose the modulation of the first and second signals with first and second frequencies, but such is disclosed by Yamashita. Yamashita discloses the use of optical modulators (15a, 15b) to control modulate light coming from sources (12-13). Such a modification of the device taught by Froggatt et al would have been obvious to one of ordinary skill in the art in order to allow the device to perform the comparison of phase and measurement of chromatic dispersion.

With respect to claim 16, Froggatt et al does not explicitly disclose the modulation of the first and second signals with first and second frequencies, but such is

Art Unit: 2878

disclosed by Yamashita. Yamashita discloses the use of optical modulators (15a, 15b) to control modulate light coming from sources (12-13). Such a modification of the device taught by Froggatt et al would have been obvious to one of ordinary skill in the art in order to allow the device to perform the comparison of phase and measurement of chromatic dispersion.

With respect to claim 21, Froggatt et al disclose a device comprising: optical coupler (306) for splitting an initial measurement signal produced by tunable laser (302) into two measurement signals (354, 356); polarization beam splitters (30, 32) for coding the measurement signals (354, 356) with a code; and detector (340) for detecting the reflected and transmitted signals from device under test (21). Froggatt et al disclose one coded signal (354) being fed into device under test (21) in one direction, and other coded signal (356) being fed into device under test (21) in the other direction. Froggatt et al also disclose the detector (340) receiving a reflected signal in response to first coded signal (354) and a transmitted signal in response to second coded signal (356). Froggatt et al does not explicitly disclose the modulation of the first and second signals with first and second frequencies, but such is disclosed by Yamashita. Yamashita discloses the use of optical modulators (15a, 15b) to control modulate light coming from sources (12-13). Such a modification of the device taught by Froggatt et al would have been obvious to one of ordinary skill in the art in order to allow the device to perform the comparison of phase and measurement of chromatic dispersion.



***Response to Arguments***

12. Applicant's arguments with respect to claims 1, 7-10, & 12-21 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J. Lee whose telephone number is (571) 272-2440. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Stephane B. Allen  
Primary Examiner

Patrick J. Lee  
Examiner  
Art Unit 2878

Application/Control Number: 10/500,596  
Art Unit: 2878

Page 9

PJL  
June 21, 2006